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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.         | CONFIRMATION NO.       |
|--|-------------|----------------------|-----------------------------|------------------------|
| 10/071,368   | 02/08/2002  | Ryusuke Hasegawa     | H0002699 (4710)             | 1788                   |
| 7590<br>Staas & Halsy LLP<br>1201 New York Avenue, N.W.<br>Suite 700<br>Washington, DC 20005 |             | 10/18/2007           | EXAMINER<br>NGUYEN, TUYEN T |                        |
|  |             |                      | ART UNIT<br>2832            | PAPER NUMBER           |
|  |             |                      | MAIL DATE<br>10/18/2007     | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/071,368             | HASEGAWA ET AL.     |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | TUYEN T. NGUYEN        | 2832                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 03 July 2007.

2a) This action is **FINAL**.                                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1,4,5,7,8 and 11-13 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1,4,5,7,8 and 11-13 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)                                    4) Interview Summary (PTO-413)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    Paper No(s)/Mail Date. \_\_\_\_\_.  
3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

5) Notice of Informal Patent Application  
6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-5, 7-8 and 11-13, are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Nakagawa et al. [JP 06-151143].

AAPA discloses a bandpass filter having an inductor including a *non-gapped core*.

AAPA discloses the instant claimed invention except for the specific of the magnetic core.

Nakagawa et al. discloses discloses a magnetic core that consists essentially of an Fe-base amorphous metal alloy ribbon and has a *substantially constant* permeability over a frequency range about 1 to 1000kHz. Nakagawa et al. further discloses the core having a permeability in a range of 400 to 1000 over a frequency range of 1 to 1000kHz [figure 2]. Nakagawa et al. inherently discloses a linear B-H loop of the device and the *substantially constant permeability* exists for a field strength range approximately -15 to +15 Oe.

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to use the magnetic core of Nakagawa et al. in AAPA for the purpose of improving magnetic characteristics.

***Response to Arguments***

Applicant's arguments filed 7/3/2007 have been fully considered but they are not persuasive.

Applicant argues that:

[1] Nakagawa product intended for use in a switching power supply which is totally different product than a product intended for use in a bandpass filter of the present invention.

[2] Nakagawa core does not give low [including zero] resonance frequency shifts.

[3] Applicant acknowledges that Nakagawa discloses a constant permeability *but in a very small range of  $\pm 2mOe$ .*

[4] AAPA in view of Nakagawa fail to disclose a linear BH loop with a constant permeability at near zero field over a field strength range of approximately -15 to +15 Oersteds (Oe).

The examiner disagrees.

Regarding [1], AAPA discloses a core for a bandpass filter. Nakagawa discloses a magnetic core for a magnetic device. A skilled artisan would have been motivated to seek in magnetic field art for the magnetic core having a constant permeability over a frequency range.

Regarding [2], applicant has not claimed, nor has examiner considered, any core giving low [including zero] resonance frequency shifts.

Regarding [3], Nakagawa discloses, in table 1, the field strength ranging from 0.8 to 14.0 Oe.

Regarding [4], AAPA discloses a linear BH loop with a constant permeability at near zero field over a field strength range of approximately -10 to +10 Oe [figure 3 of present invention]. Nakagawa discloses, in table 1, a field strength ranging from 0.8 to 14.0.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUYEN T. NGUYEN whose telephone number is 571-272-1996. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ELVIN ENAD can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TN *TN*



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